

**REMARKS**

Applicant submits the following remarks in response to the Final Office Action of April 8, 2003. In the Final Office Action, the Examiner rejected claims 37-47, 49-55 and 57-61 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 4,696,479 to Karcher ("Karcher"), claim 48 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 3,135,518 to Carson et al. ("Carson") in view of U.S. Patent 4,552,367 to Fedorovich et al. ("Fedorovich"), and claim 56 under 35 U.S.C. § 103(a) as being unpatentable over Karcher in view of U.S. Patent 4,943,068 to Hatch et al. ("Hatch").

In this amendment, Applicant amends claim 37 back to its original, as-filed form and offers arguments distinguishing claims 37-61 from the cited references, thereby overcoming the claim rejections. Applicant also adds new claims 64-102, which are supported by the specification as filed.

Applicant respectfully submits that claims 37-61 and 64-102 are patentable over the prior art of record. Accordingly, Applicant requests a notice of allowance.

**a. 35 U.S.C. § 102(b) Rejections**

In the Final Office Action, the Examiner rejected claims 37-47, 49-55 and 57-61 under 35 U.S.C. § 102(b) as being anticipated by Karcher. A claim is anticipated only if each and every element as set forth in the claim is found in a single prior art reference. *MPEP* § 2131.

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- 1. Karcher does not anticipate independent claim 37, which is a means claim and is construed to cover the corresponding structure described in Applicant's specification.*

Independent claim 37 is directed to "[a] seal comprising a housing structure ... compris[ing] a **means** for preventing foreign material from entering the sealed area." Means claims are construed to cover the corresponding structure described in the specification.

A comparison of Applicant's specification and figures to those of Karcher makes it clear that Karcher does not anticipate independent claim 37 or its dependent claim 38. Applicant

respectfully requests that the anticipation rejection of claims 37 and 38 be reconsidered and withdrawn.

2. *Karcher does not anticipate independent claims 39 and 49 because Karcher's "washer" is not a filter; the washer's gap allows debris to enter into the seal without having to pass through filter material.*

Karcher discloses a shaft seal assembly with "an annular felt washer or ring 70." *Karcher*, col. 4, ll. 23-24. As recited in the online version of the *Cambridge Dictionary of American English*<sup>1</sup>, a washer is "a flat ring ... that is used to make a tighter connection between two pieces or parts of something." Similarly, in the *McGraw-Hill Dictionary of Scientific and Technical Terms*<sup>2</sup>, a washer is "[a] flattened, ring-shaped device used to improve ... tightness." Thus, Karcher does not disclose a filter.

This argument is further strengthened by FIG. 3 of Karcher, which clearly shows a gap between the end of the "washer" and the adjacent "inner annular member 32." This gap prevents Karcher's "washer" from performing a filtering function because debris can enter into the seal without having to pass through filter material. Therefore, Karcher's annular felt washer 70 does not serve as a "filtering structure" or "form[] a filtering barrier," as recited in independent claims 39 and 49, respectively.

Interpreting Karcher's "washer" to be a filter can only be accomplished by ignoring Karcher's clear teachings and by using Applicant's own teachings against the Applicant. Clearly, inappropriate hindsight is being exercised in the rejections utilizing Karcher.

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For at least these reasons, Karcher does not anticipate independent claims 39 and 49. Since claims 40-48 depend on claim 39 and claims 50-61 depend on claim 49, the above arguments apply *a fortiori* to the rejection of dependent claims 40-48 and 50-61. Applicant respectfully requests that the anticipation rejection of claims 39-61 be reconsidered and withdrawn.

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<sup>1</sup> [http://dictionary.cambridge.org/define.asp?key=washer\\*1+0&dict=A](http://dictionary.cambridge.org/define.asp?key=washer*1+0&dict=A)

<sup>2</sup> p. 2150, 5<sup>th</sup> Edition (1994)

**b. 35 U.S.C. § 103(a) Rejections**

In the Final Office Action, the Examiner rejected claim 48 under 35 U.S.C. § 103(a) as being unpatentable over Carson in view of Fedorovich. However, with respect to this rejection, the Examiner went on to discuss a combination of Karcher and Fedorovich, making no further mention of Carson. Therefore, Applicant assumes that the Examiner's listing of Carson was a typographical error and that the Examiner intended to base his obviousness rejection of claim 48 on a combination of Karcher and Fedorovich. Therefore, Applicant's response to this rejection is made in accordance with this assumption. In the Final Office Action, the Examiner also rejected claim 56 under 35 U.S.C. § 103(a) as being unpatentable over Karcher in view of Hatch.

In order for a combination of references to establish a case of prima facie obviousness, three requirements must be met: (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings; (2) there must be a reasonable expectation of success; and (3) the prior art references when combined must teach or suggest all the claim limitations. *MPEP* §2142.

"The genius of invention is often a combination of known elements which in hindsight seems preordained. To prevent hindsight invalidation of patent claims, the law requires some 'teaching, suggestion or reason' to combine cited references. When the art in question is relatively simple, as is the case here, the opportunity to judge by hindsight is particularly tempting. Consequently, the tests of whether to combine references need to be applied rigorously." McGinley v. Franklin Sports, Inc., 262 F.3d 1339, 1351 (Fed. Cir. 2001) (cites omitted).

As explained in the preceding section, Karcher discloses a "washer" with a gap that would allow debris to enter the sealed area without passing through the filter (i.e., the debris could enter the sealed area without being filtered). As a result, Karcher does not teach or suggest a filter or the need for a filter. It is clear, that by interpreting Karcher's "washer" to be a filter, Karcher's clear teachings are being ignored and Applicant's own teachings are being used against the Applicant. Thus, inappropriate hindsight is being exercised.

With respect to the obviousness rejection of dependent claim 56, while Hatch discloses a seal with a porous filter, only Applicant's own teachings would motivate one to replace Karcher's gapped washer with Hatch's filter. This results in the exercise of inappropriate hindsight. Therefore, Applicant respectfully requests that the obviousness rejection of claim 56 be reconsidered and withdrawn.

With respect to the obviousness rejection of dependent claim 48, neither Karcher nor Fedorovich teach or suggest a filter. Therefore, for at least this reason, the combination of Karcher and Fedorovich fails to teach or suggest all the elements recited in claim 48 and the claim on which it depends. Thus, Applicant respectfully requests that the obviousness rejection of claim 48 be reconsidered and withdrawn.

**c. New Claims 64-102 Are Supported By The Specification As Filed And Are Patentable Over The Art Of Record.**

*1. New Claims 64-84.*

Karcher discloses a shaft seal assembly with "an annular spring retaining ring 74" that has "a radially inwardly extending short flange 80," "an outer annular member 20" that has a "radially inwardly extending flange 30," "an annular felt washer or ring 70," and an "inner annular member 32" that has a "radially outwardly extending flange 36." *Karcher, col. 3, ll. 45-62; col. 4, ll. 23-40; and FIGS. 2 & 3.* New independent claim 64 claims a method for sealing a dynamic shaft assembly containing a bore for receiving a seal. Specifically, new independent claim 64 recites, "providing a seal having . . . at least one **filtering structure between the outside face of the first flange and the inside face of the faceplate,**" wherein the "**first flange extend[s] radially outwardly from, and generally perpendicular to, the inner portion.**"

New independent claim 73 claims a seal for sealing a dynamic shaft assembly. Specifically, independent claim 73 recites "a filtering material portion, wherein the filtering material portion forms a **filtering barrier between the inside face of the faceplate and the outside face of the sleeve flange,**" wherein the "**sleeve flange extend[s] radially outwardly from the sleeve.**"

Karcher fails to disclose each and every element recited in new independent claims 64 and 73. Karcher does not disclose the faceplate/filter/flange configuration recited in independent claims 64 and 73. Specifically, Karcher's annular felt washer 70 is **not** between the inside of the face plate and the outside of a flange that extends radially outwardly from an inner portion of the seal, as recited in independent claim 64. Also, Karcher's annular felt washer 70 is **not** between the inside of the face plate and the outside of a sleeve flange that extends radially outwardly from the sleeve, as recited in independent claim 73.

This reasoning applies *a fortiori* to claims 65-72 and 74-84, which depend on new independent claims 64 and 73, respectively. Applicant respectfully requests a notice of allowance for new claims 64-84.

Support for new claims 64-84 may be found in FIG. 7 and in the specification as filed.

## 2. New Claims 85-102.

Karcher discloses an "annular felt washer" 70 that is fixed relative to the faceplate 93 and does not rotate with the shaft 10. *Karcher, FIGS. 1 & 3*. New independent claim 85 claims a seal for sealing a dynamic shaft assembly. Specifically, independent claim 85 recites, "a filtering material portion, wherein the **filtering material portion** contacts the inside face of the faceplate, **rotationally displaces relative to the face plate**, and forms a filtering barrier between the faceplate and the sleeve." Thus, Karcher fails to disclose each and every element recited in new independent claim 85. This reasoning applies *a fortiori* to claims 86-97, which depend on new independent claim 85. Applicant respectfully requests a notice of allowance for new claims 85-97.

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Karcher's flange 36 off of the sleeve 32 does not contact the "annular felt washer" 70. New independent claim 98 claims a seal for sealing a dynamic shaft assembly. Specifically, independent claim 98 recites, "the sleeve comprising a flange extending radially outwardly from the sleeve ... [and] a **filtering material portion** ... **[that] contact[s] the flange and the inside face of the faceplate [and] rotationally displaces relative to the flange.**" Therefore, Karcher fails to disclose each and every element recited in new independent claim 98. This reasoning

applies *a fortiori* to claims 99-102, which depend on new independent claim 98. Applicant respectfully requests a notice of allowance for new claims 98-102.

Support for new claims 85-102 may be found in FIG. 7 and page 24, lines 3-13 of the specification as filed.

### **CONCLUSION**

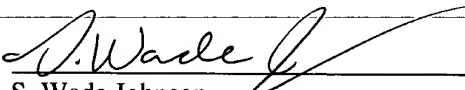
In view of the preceding remarks, Applicant respectfully urges that the Examiner's rejections be reconsidered and withdrawn, and that claims 39-61 and 64-102 be allowed. However, if the Examiner believes that any issues remain unresolved, the Examiner is invited to telephone the undersigned to expedite allowance.

This response is being submitted on or before September 8, 2003 with a Request for Continued Examination and a petition for a two-month extension of time to respond (from July 8, 2003 – September 8, 2003) along with a check in the amount of \$589 to cover the fees associated with the petition and RCE. It is believed that no additional fees are due in connection with this filing. However, the Commissioner is authorized to charge any additional fees which may be required, or credit any overpayment, to Deposit Account No. 04-1420.

Respectfully submitted,

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